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<p>(21) International Application Number: PCT/GB98/03142</p> <p>(22) International Filing Date: 22 October 1998 (22.10.98)</p> <p>(30) Priority Data: 22 October 1997 (22.10.97) GB <i>22 Oct 97 / 30 Mar 1</i></p> <p>(71) Applicant (for all designated States except US): PRINTABLE FIELD EMITTERS LTD. [GB/GB]; 6 Elm Grove, Hartlepool TS26 8LZ (GB).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): TUCK, Richard, Allan [GB/GB]; 34 Park Lane, Slough SL3 7PF (GB); JONES, Peter, Graham, Adpar [GB/GB]; 56 King's Ride, Penn, High Wycombe HP10 8BP (GB).</p> <p>(74) Agent: STANLEY, David, William; Kings Court, 12 King Street, Leeds LS1 2HL (GB).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published With international search report.</p>	
<p>(54) Title: FIELD EMISSION DEVICES</p> <p>(57) Abstract</p> <p>A field electron emission cathode is manufactured by depositing on an insulating substrate (300), by low resolution means, a sequence of a first conducting layer (301), a field emitting layer (302) and a second conducting layer (303) to form at least one cathode electrode. There is then deposited on the cathode electrode by low resolution means, a sequence of an insulating layer (304) and a third conducting layer (305), to form at least one gate electrode. The structure thus formed is then coated with a photoresist layer (306). The photoresist layer (306) is then exposed by high resolution means to form at least one group of emitting cells, the or each such group being located in an area of overlap between a cathode electrode and gate electrode. To complete the cells, the conducting and insulating layers (305, 304, 303) are etched sequentially to expose the field emitting layer (302) in the cells, and remaining areas of the photoresist layer (306) are removed. Thus, field emitting materials and devices can be manufactured using relatively low cost techniques.</p>			